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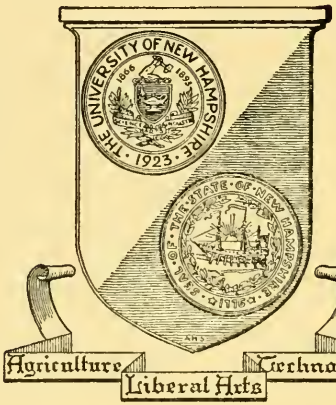

The University
of
New Hampshire

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THE UNIVERSITY OF NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF AGRICULTURAL CHEMISTRY

Inspection of Commercial Feeding--Stuffs

MADE FOR THE
STATE DEPARTMENT OF AGRICULTURE
No. 7118

By H. R. KRAYBILL and T. O. SMITH

THE UNIVERSITY OF NEW HAMPSHIRE
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INSPECTION OF COMMERCIAL FEEDING-STUFFS

ANALYSES OF COMMERCIAL FEEDING-STUFFS COLLECTED BY THE COMMISSIONER OF AGRICULTURE, 1923.

INTRODUCTION

The New Hampshire Feeding-Stuffs law requires that before feeds may be offered or exposed for sale in the state they must be registered with the Commissioner of Agriculture. The feeds must also be properly labeled showing the minimum percentage only of protein, fat and carbohydrates and the maximum percentage of crude fiber. The object of the law is to have the feeding-stuffs correctly labeled in order that the purchaser may know the kind of feed he is buying. In order to enforce the law the Commissioner of Agriculture directs the State Inspector to visit the various feed warehouses throughout the state, collect samples and submit them to the Agricultural Experiment Station for analysis.

This report deals with the inspection of commercial feeding-stuffs for the year 1923, made under the direction of the Honorable Andrew L. Felker, Commissioner of Agriculture. Mr. E. D. Sanborn, State Inspector, visited most of the feed warehouses in the state and collected 261 samples of feeds.

QUALITY OF FEEDING-STUFFS ANALYZED.

The relative number of feeds in the respective classes is similar to that of the past two seasons. There is a decrease in the number of oil meals and an increase in the dairy feeds. The quality of the feeding-stuffs shows a

slight improvement over those of last year and a very decided improvement over those of two years ago. The deficiencies in guaranteed analyses are less frequent than in the preceding two years. The largest percentage of deficiencies in analysis is found in the compound feeds, cottonseed meals and oil meals. Only 2 per cent. of the samples analyzed were seriously deficient in both protein and fat.

CLASSIFICATION OF FEEDING-STUFFS ANALYZED.

In classifying the feeding-stuffs the class names under which they have been sold have been used. Table Number 1 shows the number of feeding-stuffs in each class, the average per cent. of protein and fat found and the price per 100 pounds.

TABLE NUMBER I.

Class	No. of Feeds	Average Per Cent. Protein	Average Per Cent. Fat	Average Price per 100 lbs.
Alfalfa Meal	3	15.04	2.03	2.26
Beet Pulp	4	9.23	0.53	3.03
Calf Meal	3	25.75	4 38	4.85
Compounded Feed	31	10.51	4.62	2.16
Corn and Oat Feed	3	10.33	4.62	2.33
Cottonseed Meal	18	39 86	6.92	2.97
Dairy Feed	43	22.53	5.36	2.59
Gluten Feed	5	28.50	3.30	2.64
Hominy Feed	9	10.97	6.58	2.13
Linseed Meal	6	32 94	6.33	3.18
Oat Feed	1	5.43	2.03	1.05
Poultry Feed	31	26.89	7.16	3.66
Wheat Feed	104	16.16	5.01	1.96
Total	261			

DEFICIENCIES IN ANALYSIS

Table Number 2 shows the number of samples found deficient in protein and fat, the number of samples deficient in both protein and fat and also the percentage number of each class showing such deficiencies. In making up the table only those deficiencies of one-half of one per cent. or more of protein and one-fourth of one per cent. or more of fat were used.

TABLE NUMBER II

Class	No. in Class	No. Def. ½% Protein	No. Def. ¼% Fat	No. Def. both Protein and Fat	% Def. ½% Protein	% Def. ¼% Fat	% Def. both Protein and Fat
Alfalfa Meal	3	0	0	0	0	0	0
Beet Pulp	4	0	0	0	0	0	0
Calf Meal	3	0	1	0	0	33	0
Compounded Feed	31	4	2	0	13	6	0
Corn and Oat Feed	3	0	0	0	0	0	0
Cottonseed Meal	18	3	0	0	17	0	0
Dairy Feed	43	3	2	0	7	5	0
Gluten Feed	5	0	0	0	0	0	0
Hominy Feed	9	0	2	0	0	22	0
Linseed Meal	6	3	1	1	50	17	17
Oat Feed	1	0	0	0	0	0	0
Poultry Feed	31	2	1	1	6	3	3
Wheat Feed	104	6	4	2	6	4	2
Total Number	261	21	13	4	8	5	2

WHAT DOES THE CHEMICAL ANALYSIS MEAN?

In a feed analysis the following determinations are usually made: protein, fat, carbohydrates, ash, moisture and crude fiber.

Protein is determined by finding the percentage of total nitrogen and multiplying this by the factor 6.25, since it has been found that the average proteins contain 16 per cent. nitrogen. While this includes small amounts of certain other compounds which contain nitrogen, for all practical purposes it is sufficiently accurate. Protein, then, is made up of the compounds in the feed which contain nitrogen.

Fat is determined by extracting a dried sample of the feeding-stuff with ether and weighing the residue after the ether is driven off. In main it contains the vegetable fats of which olive oil, linseed oil, and cottonseed oil are examples. It contains also small amounts of chlorophyll, (the green coloring matter of the leaves), waxes, resins, etc.; but for practical purposes it is accurate enough to deal with it as fat.

Ash is determined by weighing the residue after the feeding-stuff has been burned at a low temperature. It contains the mineral matter of feeding-stuffs.

Moisture is determined by finding the loss in weight after heating at the temperature of boiling water. It shows the amount of water that the feed contains.

Carbohydrates are determined by adding the percentages of the protein, fat, moisture and ash, and subtracting the total from 100 per cent. The carbohydrates are composed largely of starches, sugars, pentosans, celluloses, etc. The carbohydrates include the crude fiber also. The percentage of carbohydrates less the percentage of crude fiber is called *nitrogen free extract.*

Crude Fiber is made up of the more woody-like carbohydrates which are largely of a cellulose nature. Pure cotton is an example of almost pure cellulose. Wood, straw, corn fodder, etc., are materials which are high in crude fiber content.

WHAT ARE FOODS FOR ANIMALS?

In order that an animal may continue to live even without making growth or producing wool, eggs, milk or work, etc., there are certain food materials which it must have. The animal must have a certain amount of protein, fat, carbohydrates, water and mineral constituents. In addition other things known as "vitamines," "growth promoting substances," or "food accessories," the chemical nature of which we know very little, are necessary. The latter substances, however, are usually present in sufficient quantities in our regular feeding-stuffs if we feed a sufficient variety and particularly if we feed a good leguminous roughage. Our feeding-stuffs usually contain mineral matter sufficient for the needs of an animal with a few exceptions, such as calcium carbonate, which we furnish as oyster shells for hens, and phosphorus and calcium which is sometimes fed to dairy cattle and pigs in the form of bone meal. If alfalfa or clover is fed as a roughage they will aid very much in furnishing a proper mineral supply. *The protein, fat and carbohydrates are the foods which we are particularly interested in when we buy commercial feeding-stuffs and it is their content which largely determines the value of the feed.*

DIGESTIBILITY IMPORTANT IN DETERMINING THE VALUE OF FEED.

When fed not all of the protein, carbohydrates and fat in the different feeding-stuffs are digested. In comparing the value of the different feeding-stuffs, especially when they are of different types, we must take into consideration the digestibility of these food nutrients. The *coefficient of digestibility* is a term which expresses the percentage amount

of the food nutrients which are digested and absorbed by the animal. Table Number 3 gives a summary of the average results for some of our common feeding-stuffs.

TABLE NUMBER III

AVERAGE DIGESTIBILITY OF FEEDING STUFFS, WITH RUMINANTS EXPRESSED IN PERCENTAGE

(Taken from "Feeds and Feeding" by Henry and Morrison.)

	Dry Matter	Protein	Crude Fiber	Nitrogen Free Extract	Fat
Corn Meal	90	74	57	94	93
Gluten Meal	88	85	55	90	93
Gluten Feed	86	85	76	88	85
Hominy Feed	83	66	76	90	91
Wheat Bran	65	78	31	72	68
Standard Wheat Middlings	..	77	30	78	88
Barley	88	78	56	92	78
Oats	70	78	35	81	87
Buckwheat	71	75	24	76	100
Soybean Meal	..	92	99	100	68
Linseed Meal (old process)	79	89	57	78	89
Linseed Meal (new process)	81	86	73	87	95
Cottonseed	66	68	76	50	87
Cottonseed Meal	77	84	37	75	95
Cottonseed Feed	56	58	45	61	90
Dried Brewers' Grain	61	81	49	57	89
Dried Beet Pulp	75	52	83	83	..
Molasses Feeds	68	61	50	79	100
Flesh Meal	..	93	..	..	98
Fish Meal	71	78	..	..	100
Timothy Hay	55	48	50	62	50
Barley Hay	59	65	62	63	41
Oat Hay	54	54	52	56	61
Alfalfa	60	71	43	72	38
Red Clover	59	59	54	66	57
Corn Silage Dent Immature	64	53	68	66	71
Corn Silage Dent Mature	66	51	65	71	82

We have this data for the pure grains and feeds, but because the various proprietary feeds are not standardized there are not data available for them.

HOW TO USE TABLE NUMBER 3.

Only the digestible nutrients are of value and so in comparing two feeds we should compare just the digestible nutrients. Suppose we had a cottonseed meal which analyzed 38 per cent. protein. The table shows cottonseed protein to be 84 per cent. digestible. We then would have 84-100 of 38 lbs., or 31.9 lbs. of digestible protein per 100 pounds. If a wheat bran analyzed 15 per cent. protein we see from the table that it is 78 per cent. digestible and we would have 78-100 of 15 or 11.7 lbs. of digestible protein. The cottonseed meal would have 31.9 lbs. compared with 11.7 in wheat bran.

HOW TO FIGURE THE COMPARATIVE VALUE OF FEEDS FROM THE CHEMICAL ANALYSIS.

Because such factors as palatability, quality of protein, digestibility, etc., play an important part in determining the value of feeding-stuffs it is difficult to make an exact comparison of their value from a chemical analysis. The analysis will, however, serve as a very valuable guide. Since the farmer can usually raise carbohydrates cheaper than he can purchase them he is chiefly interested in buying the concentrated feeding-stuffs for their protein and fat content.

Feeds may be compared upon the basis of the number of pounds of protein and fat one dollar will buy. An example is as follows: Feed number 93 sells for $1.90 per 100 pounds and is guaranteed protein 8.50 per cent. and fat 3.50 per cent. If it contains 8.50 per cent. protein there are 8.50 pounds of protein in 100 pounds of feed costing $1.90. Then one dollar will buy 8.50 divided by 1.90 or 4.5 pounds of protein and 3.50 divided by 1.90 or 1.8 pounds

of fat. Feed number 45 sells for $1.70 per 100 pounds and is guaranteed 16.00 per cent. protein and 5.50 per cent. fat. Then one dollar buys 16.00 divided by 1.70 or 3.2 pounds of protein and 5.50 divided by 1.70 or 3.2 pounds of fat.

In other words in feed number 45 the consumer receives more than twice as much protein and nearly twice as much fat per dollar as in feed number 93. These figures represent two feeds of the same type which were sold in New Hampshire in 1923. In comparing feeds of the same class this method shows fairly accurately their relative value. When feeds of different types like a cottonseed meal and a hominy feed are compared the digestible protein figures should be compared and the carbohydrates must also be taken into consideration.

Table Number 4 shows the average number of pounds of protein and fat one dollar would buy for each class of the feeding-stuffs analyzed in 1923.

TABLE NUMBER IV

Class	No. of lbs. of Protein $1.00 will buy	No. of lbs. of Fat $1.00 will buy
Alfalfa Meal	6.7	0.9
Beet Pulp	3.0	0 2
Calf Meal	5.3	0.9
Compounded Feed	4.9	2.1
Corn and Oat Feed	4.4	2.0
Cottonseed Meal	13.4	2.3
Dairy Feed	8.7	2.1
Gluten Feed	10.8	1.3
Hominy Feed	5.1	3.1
Linseed Meal	10.4	2 0
Oat Feed	5.1	1.9
Poultry Feed	7.3	2.0
Wheat Feed	8.3	2.6

ECONOMICAL CHOICE OF PROTEIN FEEDS.

Feeding trials with dairy cows have shown that when alfalfa or clover hay and silage are fed as roughages there is little difference in the efficiency of gluten feed, oil meal or cottonseed meal as sources of protein. If you are feeding a good quality roughage it is advisable in making a ready mixed ration to use the protein rich feeds which furnish the digestible protein at the lowest cost. When linseed oil meal furnishes more pounds of protein per dollar more of it should be used and when cottonseed meal furnishes more pounds of protein per dollar more cottonseed meal and less linseed meal should be used. *Study the analysis of the feeds and buy economically. It will pay!*

COMPARATIVE VALUES OF COTTONSEED MEALS.

Eighteen samples of cottonseed meals were analyzed A comparison of the analyses and selling prices shows that the higher the analysis the cheaper the cost of protein is per pound. Table Number 5 shows the number of samples analyzed under each percentage, the price per 100 pounds and the average number of pounds of protein that one dollar will buy in each case.

TABLE NUMBER 5

COTTONSEED MEALS

Guaranteed Per Cent. of of Protein	Number of Samples	Average % of Protein Found	Average Price per 100 Pounds	No. Pounds Protein $1.00 Will Buy
36	8	36.11	$2.95	12.2
38	0	.....	.....	....
41	3	41 43	3.00	13.8
43	7	43.48	2.99	14.5

One dollar would buy 12.2 pounds of protein in the 36 per cent. cottonseed meals and 14.5 pounds in the 43 per cent. cottonseed meals. *Or in other words one dollar would buy over eighteen per cent. more protein in the 43 per cent. cottonseed meal than in the 36 per cent. meals.* The average price per ton of the higher analysis meals is higher but the cost per pound of protein is less. *Determine the comparative value of the feeds offered for sale before purchasing. Buy intelligently!*

READY MIXED FEEDS SHOULD BE PROPERLY BALANCED.

In selecting a ready mixed feed such as a dairy feed it is well to examine the analysis and see that the feed is properly balanced for use with the kind of roughage which you feed. The Dairy Department of the University of New Hampshire recommend for use with a high protein roughage a feed containing 15 per cent. crude digestible protein, for use with a medium protein roughage a feed containing 17 per cent. crude digestible protein, and for use with a low protein roughage a feed containing 19 per cent. crude digestible protein. The analysis of a feeding-stuff shows the crude protein of which a portion is not digestible. While it is impossible to give an accurate figure for the digestiblity of ready mixed feeds it will be approximate to assume that from 80 to 85 per cent. of the crude protein is digestible. On such a basis for use with a high protein roughage a ready mixed dairy feed should contain at least 17.5 per cent. protein with a medium protein roughage at least 20.00 per cent. protein and with a low protein roughage at least 22.00 per cent. protein.

IMPORTANCE OF ALFALFA AND CLOVER

Recent studies in animal nutrition and feeding trials have led to discoveries which have a very important bearing upon practical feeding. It has been shown for instance

that not all proteins are of equal value, that our feeds may be deficient in certain mineral elements particularly phosphorous and calcium and that certain substances known as vitamines are essential for the proper development of animals.

If dairy cattle or swine are fed certain concentrated feeding-stuffs with a poor roughage such as corn stover, straw, or possibly native hay, the feeding value of the concentrates is not nearly so great as when the animals are in pasture or are fed a good leguminous roughage such as clover or alfalfa. The reasons for this may be that the concentrated feeding-stuff does not contain the proper vitamines, sufficient of the proper mineral elements or the proper proteins. If on the other hand good alfalfa or clover and silage are fed as a roughage these deficiencies in the ration will be taken care of. *Grow good quality roughage! It will make the feeding-stuffs which you buy more valuable!*

REQUESTS FOR ANALYSIS OF FEEDS.

The Department is frequently asked to make analyses of samples of feeds for individuals. This they are always glad to do when the circumstances warrant it. It must be pointed out, however, that the privilege is sometimes abused. Many of these samples apparently represent only a handful of feed taken from one bag and are sent to the Department carelessly wrapped in paper or in a pasteboard box from which much of the fine material may have been lost. The analysis of these samples requires the same expenditure of labor and materials as the analysis of an official sample; yet the figures obtained may be worse than worthless if the sample examined does not accurately represent the lot from which it was taken.

On account of the expense involved in making these analyses and also the possibility under present conditions of the figures obtained being unreliable the Department wishes to suggest; first, that in cases where the amount of

feed is less than one ton that instead of sending a sample for analysis that the consumer write us asking our findings on the last official samples of this feed which we have analyzed and second, that where the amount of feed is more than one ton that a sample be taken from at least ten per cent. of the bags in a manner that will insure its being accurately representative of the whole lot. In order that the analyses may be of value to the Department as well as to the individual we request that the following information on each sample be submitted: brand, manufacturer, address, guarantee: protein, fat, carbohydrates, moisture, ash, crude fiber, ingredients, dealer, address, number of bags in lot, number of bags sampled, price per 100 pounds, your name, address, your reason for requesting analysis.

SOME SUGGESTIONS IN PURCHASING FEEDS.

1. Compare the cost of feeds with their analysis even within the same class and buy the feeds which offer the greatest value for the dollar.

2. Beware of misleading brand names indicating unusual feeding value. Let the analysis rather than the brand name be your guide.

3. If you grow legumes or high protein crops for roughage you will need to buy less of the expensive protein feeds and the feeding-stuffs which you buy will have a higher feeding value.

4. A good feed is high in protein and fat or carbohydrates and low in crude fiber.

5. A poor feed is low in protein and fat and high in crude fiber.

6. If you buy a ready mixed feed be sure that it is of the proper analysis to meet your needs.

Acknowledgments are due to Mr. Michael Voyagis, who assisted in making the protein and ash determinations.

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
ALFALFA MEALS								
Alfalfa Meal	G.	13.58	1.48	31.94	....	.....	35.39	Made from alfalfa hay.
Carlisle Commission Co.	F.	15.50	2.41	66.25	8.54	7.30	.....	
Kansas City, Mo.								
Alfalfa Meal	G.	12.00	1.00	40.00	....	.....	35.00	Made from alfalfa hay.
Denver Alfalfa Milling and Products Co.		14.28	2 18	66 32	9.00	8.22	.....	
Lamar, Col.								
Alfalfa Meal	G.	12.00	1.00	35.00	....	.....	35.00	Ground alfalfa hay.
Otto Weiss Milling Co.	F.	15.33	1.50	66.03	8.61	8.53	.....	
Wichita, Kansas								
BEET PULPS								
Dried Beet Pulp	G.	8.00	0.50	54.00	....	.....	20.00	
Great Western Sugar Co.	F.	8.41	0 50	76 16	3.66	11.27	.....	
Denver, Col.								
Italian Beet Pulp	G.	7.00	0.25	76.00	....	.....	20.00	
M. B. Jones and Co., Inc.	F.	9.11	0.59	78.85	2.79	8.66	.....	
New York, N. Y.								
Dried Beet Pulp	G.	8.00	0.50	76.00	....	.....	20.00	Composed only of residue of sugar beets dried
Larrowe Milling Co.	F.	9.42	0 53	82 94	3.08	4.03	.....	after extraction of sugar.
Detroit, Mich.								
Dried Beet Pulp	G.	8.00	0.50	58.00	....	.....	20.00	Composed only of residue of sugar beets dried
West Bay City Sugar Co.	F.	9.98	0.50	78.05	3.01	8.46	.....	after extraction of sugar.
Bay City, Mich.								

CALF MEALS								
Blatchford's Calf Meal	G.	24.00	5.00	53.00	....	.....	6.75	Locust bean meal, unpressed flaxseed, blood flour, rice polish, old process linseed meal, dried milk albumen, barley meal, ground beans, cocoa shell meal, wheat flour, cocoanut oil meal, recleaned cottonseed, fenugreek, anise and salt.
Blatchford Calf Meal Co.	F.	24.61	5 28	54 32	4.80	10.99	6.71	
Waukegan, Ill.								
Purina Calf Chow Feed	G.	27.00	3.20	55.00	....	.....	4.50	Blood flour, linseed meal, hominy feed, yellow corn feed meal, wheat flour and 1% salt.
Ralston Purina Co.	F.	26.71	3.39	54.99	3.69	11.22	4.50	
Buffalo, N. Y.								
Ryde's Cream Calf Meal	G.	25.00	5.00	55.00	....	.....	6.75	Wheat flour, linseed oil meal, recleaned cottonseed meal, cocoanut oil meal, beans and lentils, hominy feed, locust bean meal, blood flour, ground flaxseed, malt flour, cocoa shell meal, dried milk, calcium carbonate, fenugreek, anise and salt.
Ryde and Co.	F.	25.92	4 47	54 18	5.65	9.78	6.68	
Chicago, Ill.								
Trojan Horse and Mule Feed	G.	10.00	4.00	60.00	....	.....	9.00	Kiln dried.
Allen and Wheeler Co.	F.	10.16	4.16	72.48	1.87	11.33	4.25	
Troy, Ohio.								
Steam Cooked Feed	G.	8.00	4.00	64.00	....	.....	4.00	Ground corn, ground oats, hominy feed, oat middlings, oat hulls, oat short, ½ of 1% salt.
Armour Grain Co.	F.	9.98	6 23	71 39	4.06	8.34	4.00	
Chicago, Ill.								
Pennant Brand Stock Feed	G.	9.00	5.00	60.00	....	.....	12.00	Fine white hominy and oat by-products, oat middlings, oat hulls and oat shorts.
E. W. Bailey and Co.	F.	9.63	6.40	70.49	4.04	9.44	10.99	
Swanton, Vt.								
Centaur Feed	G.	12.00	4.00	.....	....	.....	8.00	Linseed oil meal, hominy feed, corn meal, crushed oats, wheat bran, salt.
Chapin and Co.	F.	13.58	6.04	66 46	6.09	7.83	7.61	
Hammond, Ind.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Stock Feed	G.	9.00	4.00	45.00	....	.....	10.00	Ground oats, hominy feed, barley and oat meal, mill by-products, oat middlings, oat shorts, oat hulls, ½ of 1% salt.
E. A. Cowee Co.	F.	9.02	3.74	73.32	3.44	10.48	10.79	
Fitchburg, Mass.								
Stock Feed	G.	10.00	3.00	50.00	....	.....	10.00	Corn feed meal, wheat middlings, hominy feed, oat meal mill by-products, oat hulls, oat shorts, ground barley, ground oats.
J. Cushing Co.	F.	8.49	3.47	74.85	2.75	10.44	9.27	
Fitchburg, Mass.								
Eshelman's Thorobred Horse Feed	G.	9.50	4.00	50.00	....	.....	4.00	Rolled corn and crushed oats, steam cooked and kiln dried.
John W. Eshelman and Sons	F.	10.33	4.48	73.55	2.02	9.62	5.27	
Lancaster, Pa.								
Grandin's Stock Food	G.	9.00	5.00	55.00	....	....	12.00	Corn meal, corn feed meal, hominy feed, wheat middlings, ground barley, oat meal, mill by-products, oat middlings, oat hulls, oat shorts, ½ of 1% salt. Wheat middlings containing ground screenings not exceeding mill run.
D. H. Grandin Milling Co.	F.	8.58	5.37	74.70	3.86	7.49	13.67	
Jamestown, N. Y.								
Granite State Stock Feed	G.	9.00	5.00	60.00	....	.....	10.00	Fine white hominy, wheat red dog, oat by-products, oat middlings, oat hulls, oat shorts, ½ of 1% salt.
E. C. and W. L. Hopkins	F.	9.32	6.69	71.74	3.67	8.58	9.91	
Greenfield, N. H.								
Our Special Stock Feed	G.	8.00	3.00	70.00	....	.....	13.50	Ground corn or hominy meal, oat meal mill by-products, oat middlings, oat shorts, oat hulls, ½ of 1% salt.
E. C. and W. L. Hopkins	F.	7.49	3.34	75.94	3.95	9.28	14.42	
Greenfield, N. H.								
Homestead Stock Feed	G.	9.00	3.50	50.00	....	.....	9.00	Whole ground corn, hominy feed, whole ground oats, whole ground barley, whole ground wheat, oat meal mill by-products, oat middlings, oat flour and oat hulls.
Illinois Feed and Elevator Co.	F.	7.84	3.35	74.26	3.17	11.38	10.68	
Bloomington, Ill.								
Illinois Horse Feed	G.	10.00	2.50	50.00	....	.....	12.00	Cracked corn, crushed oats, alfalfa meal, barley, molasses and salt.
Illinois Feed and Elevator Co.	F.	10.86	3.94	72.44	4.24	8.52	11.46	
Bloomington, Ill.								
Badger Gain-Mor-Feed	G.	12.00	3.50	.....	....	.....	4.00	Red dog corn flour, wheat middlings with mill run of screenings and salt.
Charles A. Krause Milling Co.	F.	11.38	4.03	70.99	2.56	11.04	4.60	
Milwaukee, Wis.								

Milk-Mor Fancy Mized Feed	G.	12.00	3.50	.....	....	.....	5.00	Red dog, corn flour, wheat bran with mill run screenings and salt.
Charles A. Krause Milling Co. Milwaukee, Wis.	F.	12.08	4.13	69 98	2.98	10.83	5.00	
Sugared Badger Stock Feed	G.	9.00	3.00	.....	....	.....	10.00	Badger hominy feed, corn, oat meal mill by-products, oat hulls, oat middlings, oat shorts. molasses, salt.
Charles A. Krause Milling Co. Milwaukee, Wis.	F.	9.28	3.26	73.29	4.15	10.02	9.68	
Stock Feed	G.	12.00	3.00	60.00	....	.....	12.00	Ground corn, hominy feed, linseed oil meal, ground barley, low grade wheat flour, wheat bran and wheat middlings with ground screenings not exceeding mill run, gluten meal, oat hulls, ¾ of 1% salt.
McQuesten and Lewis Manchester, N. H.	F.	13.19	4 21	68 05	3.67	10.88	8.90	
Stock Feed	G.	8.00	2.50	50.00	....	.....	12.00	Ground barley, ground corn, ground oats, hominy feed, oat hulls, oat middlings, oat shorts, calcium carbonate and salt.
Park and Pollard Co. Buffalo, N. Y.	F.	8.88	3.53	72.31	3.98	11.30	7.67	
Iowa Stock Feed	G.	10.00	4.00	.....	....	.....	12.75	Wheat middlings, corn meal, hominy feed, brewers' dried grains, corn gluten feed, oat meal mill by-products, oat shorts, oat hulls, oat middlings, and 1% table salt.
Purity Oats Co. Davenport, Iowa.	F.	10.07	5.14	70.75	5.10	8.94	12.49	
Purity Oats Great Nutriment								
Purity Oats Co. Davenport, Iowa.	G.	14.00	5.00	65.00	....	.....	4.00	Steam cooked oat groats.
	F.	15.33	6.16	67.72	2.41	8.38	3.17	
Tom Boy Sugared Stock Feed	G.	9.50	4.00	60.00	....	.....	13.25	Hominy feed, wheat middlings, oat meal mill by-products, oat middlings, oat hulls, oat shorts, cottonseed meal, yellow hominy, corn meal, linseed oil meal and molasses.
Purity Oats Co. Chicago, Ill.	F.	9.94	4.00	71.69	5.06	9.31	12.28	
Richford White Diamond Stock Feed..								
Quaker Oats Co. Chicago, Ill.	G.	8.00	3.00	60.00	....	.....	14.00	Ground corn, hominy feed, barley feed, oat meal mill by-products, oat middlings, oat hulls, oat shorts, ¾ of 1% salt.
	F.	8.58	3.64	75.23	3.66	8.89	12.29	
Sugared Schumacher Feed	G.	10.00	3.25	58.00	....	.....	12.00	Ground corn, hominy feed, ground barley, cottonseed meal, old process linseed oil meal, low grade wheat flour, wheat bran, wheat middlings with ground screenings not exceeding mill run, molasses, oat meal mill by-products, oat middlings, oat hulls, oat shorts and 1% salt.
Quaker Oats Co. Chicago, Ill.	F.	10.01	3.67	72.66	4.15	9.51	10.96	

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Purina O-Molene Feed Ralston Purina Co. St. Louis, Mo.	G. F.	9.70 10.29	3.20 3.96	67.00 71.24	.... 3.78	..... 10.73	8.00 7.19	Cracked corn, crushed oats, ground alfalfa, molasses, linseed oil meal, old process, 1% salt.
New Hampshire Hog Ration Rockingham County Farmers' Exchange Epping, N. H.	G. F.	.... 14.02	.... 7.31	..... 65.05	.... 3.11	..... 10.51	..... 5.34	Fancy middlings, oil meal, optional meal or hominy.
New Hampshire Pig Ration Rockingham County Farmers' Exchange Epping, N. H.	G. F.	15.00 17.64	3.00 6.25	49.00 60.91	.... 4.89	..... 10.31	7.00 5.90	Ground fancy oats, optional meal or hominy, flour middlings, high grade meat scraps.
New Hampshire Stock Feed Rockingham County Farmers' Exchange Epping, N. H.	G. F.	12.00 13.49	4.50 4.89	65.00 69.11	.... 2.78	..... 9.73	9.00 6.68	Ground fancy oats, hominy, bran and oil meal. For work horses.
New Hampshire Stock Feed No. 2 Rockingham County Farmers' Exchange Epping, N. H.	G. F.	9.00 9.27	4.00 4.17	60.00 72.36	.... 3.96	..... 10.24	7.00 14.54	Hominy, red dog, oat feed.
Wirthmore Stock Feed St. Albans Grain Co. St. Albans, Vt.	G. F.	9.00 9.41	4.00 5.33	60.00 72.34	.... 2.38	..... 10.54	9.50 7.17	Ground barley, ground oats, ground hominy meal, ground corn, oat meal mill by-products, oat middlings, oat shorts, oat hulls, ½ of 1% salt.
Haskell's Stock Feed Sheets Elevator Co. Toledo, Ohio.	G. F.	9.00 9.11	6.00 4.12	61.00 76.88	.... 2.20	..... 7.69	9 00 8.19	Ground corn, ground oats, hominy feed, oat hulls, oat shorts and salt.
Stratton and Company Stock Feed Stratton and Co. Concord, N. H.	G. F.	7.50 8 25	2.83 3.86	66.00 74.56	.... 3.14	3.60 10.19	14.43 12.37	Cereal by-products reground oat feed, oat middling and shorts, corn bran, corn mill by-products, cracked corn siftings, best fine yellow corn meal.
Blue Seal Stock Feed H. K. Webster Co. Lawrence, Mass.	G. F.	10.00 10.33	4.00 4.32	70.00 71.29	.... 3.81	..... 10.25	10.00 10.39	Ground oats, kiln dried hominy feed, wheat feed, corn meal, linseed meal, oat feed and not over ½ of 1% salt.

CORN AND OAT FEED								
Imperial Steam Cooked Feed	G.	9.50	4.00	.....	....	.....	4 00	Composed of corn and oats.
Imperial Grain and Milling Co.	F.	9.93	4.68	73.38	2.24	9.77	4.00	
Toledo, Ohio.								
Derby Corn and Oat Feed	G.	9.25	4.00	.....	....	.....	8.00	
Tioga Mill and Elevator Co.	F.	9.68	4.87	70.94	2.62	11.89	7.88	
Waverly, N. Y.								
M-H Steam Cooked 1795 Oats and Corn	G.	9.50	4.00	.....	....	.....	5.00	
Miner-Hillard Milling Co.	F.	11.38	4.32	73.63	2.00	8.67	4.84	
Wilkes-Barre, Pa.								
COTTON-SEED MEALS								
Aco Brand Cottonseed Meal	G.	41.18	7.00	26.00	....	.....	10 00	
American Cotton Oil Co.	F.	41.18	7.92	37.59	6.45	6.86	.....	
Jackson, Miss.								
Longhorn Brand Prince Cottonseed Meal	G.	43.00	6.00	25.00	....	.....	12.00	
American Cotton Oil Co.	F.	44.43	7.41	34.78	6.38	7.00	.....	
Montgomery, Ala.								
Surety Brand Cottonseed Meal	G.	36.00	5.50	27.00	....	.....	14.00	
American Cotton Oil Co.	F.	34.68	5.84	44.60	5.88	9.00	.....	
New York, N. Y.								
Monarch Brand Choice Prime Cotton-seed Meal	G.	43.00	6.00	18.00	....	.....	10.00	Made from upland cotton seed only.
Ashcraft-Wilkinson Co.	F.	43.00	7.02	36.41	6.04	7.53	.....	
Atlanta, Ga.								
Owl Brand 36 Cottonseed Meal	G.	36.00	5.00	30.00	....	.....	14.00	A mixture of cottonseed meal and cottonseed
F. W. Brode and Co.	F.	37.30	6.48	42.42	6.23	7.57	.....	hulls.
Memphis, Tenn.								
Buckeye 36% Cottonseed Meal	G.	36.00	5.00	30.00	....	.....	14.00	Good quality.
Buckeye Cotton Oil Co.	F.	35.48	6.29	44.31	5.90	8.02	.....	
Cincinnati, Ohio.								
Choice Cottonseed Meal	G.	43.00	6.00	18.00	....	.....	10.00	Made from upland cottonseed only.
Cameron-Daniel Co.	F.	43.82	7.42	34.44	6.74	7.58	.....	
Atlanta, Ga.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Prime Cottonseed Meal	G.	43.00	7.00	.....	....	.....	11.00	
Cottonseed Products Co.	F.	43 39	7.00	35.29	5.36	8.96	.....	
Louisville, Ky.								
Rabbitfoot Brand Cottonseed Cake and	G.	43.00	5.00	.....	....	.....	12.00	
Meal	F.	43.08	7.27	36.99	5.84	6.82	.....	
Head and Co.								
Dallas, Texas.								
Bull Brand Cottonseed Meal	G.	43.00	5.00	26.00	....	.....	10.00	Made from pressed cottonseed.
Humphreys-Godwin Co.	F.	44.13	7.80	35.01	6 02	7.04	.....	
Memphis, Tenn.								
Danish Brand Cottonseed Meal	G.	36.00	5.00	25.00	....	.....	15.00	Made from cottonseed meal and cottonseed
Humphreys-Godwin Co.	F.	36.34	6.64	43.10	5.48	8 44	.....	hulls.
Memphis, Tenn.								
Dixie Brand Cottonseed Meal	G.	41.00	5.00	26.00	....	.....	10.00	Made from pressed cottonseed.
Humphreys-Godwin Co.	F.	41 33	7.03	38.37	6.60	6.67	.....	
Memphis, Tenn.								
Thirty-Six Brand Cottonseed Feed	G.	36.00	5.00	28.50	....	.....	14.00	Composed of cottonseed meal and cottonseed
L. B. Lovitt and Co.	F.	36.34	6.74	43.73	6.24	6.95	.....	hulls.
Memphis, Tenn.								
Economy Cottonseed Meal	G.	36.00	5.00	27.00	....	.....	14.00	Made from cottonseed meal and cottonseed
Lyle and Lyle	F.	34.76	6.27	45.15	6 01	7 81	.....	hulls.
Huntsville, Ala.								
Good Cotton Seed Meal	G.	36.00	5.00	28.50	....	.....	14.00	Made from cottonseed.
Marianna Cotton Oil Co.	F.	36.78	6.56	42.44	6.37	7.85	.....	
Marianna, Ark.								
Prime Cottonseed Meal	G.	43.00	6.00	25.00	....	.....	10.00	Made from cottonseed.
Marianna Cotton Oil Co.	F.	42 52	6.51	37.01	6.68	7.28	.....	
Marianna, Ark.								

Durham Thirty-Six Cottonseed Meal ..	G.	36.00	5.00	28.50	....	.....	14.00	
Memphis Cottonseed Products Co.	F.	37.17	6.82	42.17	5.98	7.86	.....	
Memphis, Tenn.								
Star Brand Cottonseed Meal	G.	41.00	5.50	25.00	....	.....	10.00	Made from pressed cottonseed.
A. C. Westervelt and Co.	F.	41.77	7.57	35.41	6 89	8.36	.....	
Memphis, Tenn.								
DAIRY FEEDS								
Trojan IXL Dairy Feed	G.	24.00	4.00	50.00	....	.....	12.00	Corn feed meal, ground oat clippings, ground oat shorts, wheat bran, wheat middlings, linseed oil meal, corn gluten feed, cottonseed meal, ground barley, calcium phosphate, salt.
Allen and Wheeler Co.	F.	24.61	5.14	55.77	6.03	8.45	8.84	
Troy, Ohio.								
Capital Dairy Ration	G.	23.00	5.50	48.00	....	.....	10.00	Corn gluten feed, linseed oil meal, hominy feed, cottonseed meal, ground oats, wheat bran, corn meal and ½% fine salt.
E. W. Bailey and Co.	F.	23 21	5.54	56.05	5.02	10.18	8.06	
Swanton, Vt.								
Ajax Dairy Ration	G.	20.00	5.00	55.00	....	.....	9.00	Cottonseed meal, corn gluten meal, linseed meal, corn gluten feed, brewers' grains, corn oil meal, wheat bran, hominy meal, salt.
Chapin and Co.	F.	21.01	6.14	57.26	6.26	9.33	8.68	
Hammond, Ind.								
Unicorn Dairy Ration	G.	24.00	5.00	50.00	....	.....	10.00	Cottonseed meal, corn gluten meal, linseed meal, corn gluten feed, brewers' grains, corn oil meal, wheat bran, hominy meal and salt.
Chapin and Co.	F.	26.01	5.65	53.09	5 83	9.42	8.26	
Hammond, Ind.								
Clover Leaf Mills Dairy Feed	G.	16.00	4.00	50.00	....	.....	14.00	Cottonseed meal, pure old process linseed meal, corn gluten feed, cocoanut oil meal, molasses and not less than ½ of 1% fine table salt. Roughages: cleaned ground and bolted grain screenings, ground and bolted clipped oat by-products. Total roughages not to exceed 50%.
Clover Leaf Milling Co.	F.	16.81	3.87	61.52	8.17	9 63	12.14	
Buffalo, N. Y.								
Master Grain Ration	G.	24.00	5.00	50.00	....	.....	10.00	Cottonseed meal, corn gluten feed, linseed meal, old process, cocoanut oil meal, old process, wheat bran, wheat middlings, dried grains from barley, malt and corn, molasses and ½ of 1% fine table salt.
Clover Leaf Milling Co.	F.	24 00	6.16	55.16	6.24	8.44	7.46	
Buffalo, N. Y.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Old Colony Feed	G.	20.00	3.50	58.00	....	.....	12.00	Cottonseed meal, hominy feed, corn gluten feed, old process linseed oil meal, dried beet pulp, wheat bran, wheat middlings, ½ of 1% salt.
Clover Leaf Milling Co. Buffalo, N. Y.	C.	21.28	4.41	58.95	5.14	10.22	12 00	
Peerless Milk Ration	G.	20.00	4.50	50.00	....	.....	12.00	Cottonseed meal, pure old process linseed meal, cocoanut oil meal, corn gluten feed, wheat bran, dried grains from barley, malt and corn, cleaned screenings, ground and bolted clipped oat by-products, molasses and ½ of 1% fine table salt.
Clover Leaf Milling Co. Buffalo, N. Y.	C.	17.36	5.23	61.89	6 46	9 06	8.45	
Sweet 16 Dairy Feed	G.	16.00	4.00	50.00	....	.....	12.00	Cottonseed meal, pure old process linseed meal, corn gluten feed, cleaned, ground and bolted clipped oat by-products, molasses and ½ of 1% fine table salt.
Clover Leaf Milling Co. Buffalo, N. Y.	C.	16.81	4.13	60.50	7.47	11.09	11.44	
Cowee's 1922 Ration	G.	21.50	5.50	45.00	....	.....	8 00	Gluten feed, linseed meal, cottonseed meal, cocoanut oil meal, corn meal, wheat bran, wheat middlings and salt.
E. A. Cowee Co. Fitchburg, Mass.	C.	21 98	5.71	57.28	4.47	10.56	8.00	
Crosby's Ready Ration								
Crosby Milling Co. Brattleboro, Vt.	G.	20.00	5.00	50.00	....	.....	10.00	Corn gluten feed, linseed oil meal, cottonseed meal, corn meal, wheat bran, wheat middlings not exceeding mill run screenings, ground oats, ¾ of 1% salt.
	C.	21.80	4.87	58.32	4.48	10 53	8.92	
Dairy Feed	G.	25.00	5.00	45.00	....	.....	12.00	Choice cottonseed meal, wheat bran, wheat middlings, cocoanut oil meal, corn gluten feed, corn gluten meal, old process linseed meal, dried beet pulp, ½ of 1% salt.
J. Cushing and Co. Fitchburg, Mass.	C.	27.14	5.08	52.51	5 55	9.72	9.24	

Vigor Dairy Feed	G.	16.50	3.50	45.00	....	.....	10.00	Cottonseed meal, cane molasses, wheat bran, cocoanut oil meal, wheat middlings, corn gluten feed, old process linseed meal, oat meal mill by-products, oat middlings, oat hulls, oat shorts, reground grain screenings, alfalfa meal, ½ of 1% salt.
J. Cushing and Co.	F.	19.44	4.06	59.44	6.37	10.69	10.00	
Fitchburg, Mass.								
Dewey's Ready Ration								
Dewey Brothers Co.	G.	25.00	6.00	50.00	....	.....	11.00	Corn distillers' dried grains, brewers' dried grains, linseed oil meal, cottonseed meal, malt sprouts, bran, wheat middlings, corn gluten feed, hominy feed and ½% salt.
Blanchester, Ohio.	F.	23 76	6.00	56.20	4.77	9 27	8.59	
Eastern States Milkmore Dairy Ration	G.	24.00	5.00	45.00	....	.....	9.00	Corn distillers' grains, cottonseed meal, old process, peanut meal, gluten feed, yellow hominy, ground oats, wheat bran, wheat middlings, cane molasses, salt, calcium carbonate.
Eastern States Farmers' Exchange	F.	24.00	5.73	53.74	5.89	10.64	9.00	
Springfield, Mass.								
Fosher's Dairy Feed	G.	22.00	3.50	50.00	....	.....	8 00	Diamond gluten meal, linseed oil meal, cottonseed meal, hominy, wheat bran, with mill run of screenings, ground oats, high grade, and ½ of 1% salt.
Fosher and Co.	F.	25.92	5.76	56.15	3 89	8.28	6.96	
Manchester, N. H.								
Grandin's 24% Dairy Ration	G.	24.00	5.00	50.00	....	.....	10.00	Distillers' dried grains, cottonseed meal, cocoanut oil meal, linseed oil meal, corn gluten feed, wheat bran, wheat middlings, hominy feed, ½ of 1% salt. wheat bran and wheat middlings, may contain ground screenings not exceeding mill run.
D. H. Grandin Milling Co.	F.	25.66	6.36	54.68	4.46	8.84	9.09	
Jamestown, N. Y.								
Grandin's Twin Six Dairy Feed	G.	22.00	5.00	50.00	....	.....	12.00	Linseed oil meal, cottonseed meal, cocoanut oil meal, corn gluten feed, wheat bran, wheat middlings, corn meal, corn feed meal, hominy feed, oat middlings, alfalfa meal, ½ of 1% salt, wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
D. H. Grandin Milling Co.	F.	22.00	5.74	58.12	4.91	9.23	9.36	
Jamestown, N. Y.								
International Special Dairy Feed	G.	15.00	4.50	47.00	....	.....	12.00	Old process oil meal, cottonseed meal, corn gluten feed, wheat bran, molasses, ground clipped oats by-products, ground, cleaned grain screenings, salt.
International Sugar Feed Co.	F.	15 59	5.79	60.59	8.37	9.66	11.29	
Minneapolis, Minn.								
A Dairy Mixture	G.	.....	....	.....	....	.....	.....	Cottonseed, linseed, hominy, stock feed, middlings, gluten feed, gluten meal.
C. H. Jameson	F.	24.12	5.51	55.23	5.16	9.98	8.29	
Colebrook, N. H.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Beatsall Milk Grains	G.	22.00	4.50	....	....	.....	10.00	Wheat middlings, wheat bran, linseed oil meal, corn gluten meal, cottonseed meal, hominy feed, ¾ of 1% salt, beet pulp.
Kasco Mills	F.	23.12	5.51	56.19	5.17	10.01	7.12	
Toledo, Ohio.								
Mormilk Dairy Ration	G.	25 00	5 00	.....	....	.....	10.00	Hominy feed, wheat bran, wheat middlings, linseed meal, cottonseed meal, corn gluten feed, ½ of 1% salt.
Kasco Mills	F.	25.00	6.18	52.54	5.19	11.09	6.96	
Toledo, Ohio.								
Badger Krameo Dairy Ration	G.	20.00	4.00	.....	....	.....	11.00	Badger hominy feed, beet pulp, linseed meal, prime cottonseed meal, gluten feed, distillers' grains, malt sprouts, corn meal, wheat middlings, wheat bran with mill run screenings and salt.
Charles A. Krause Milling Co.	F.	21.45	5.51	58.54	5.29	9.21	10.19	
Milwaukee, Wis.								
Larro., the Ready Ration	G.	20.00	3 50	58 00	....	.....	14.00	Cottonseed meal, corn gluten feed, linseed oil meal, standard wheat bran, standard wheat middlings, dried beet pulp, ¾ of 1% salt.
Larrowe Milling Co.	F.	21.15	4.16	59.10	5.29	10.30	11.91	
Detroit, Mich.								
Bull Brand Dairy Ration	G.	24.00	6.00	50.00	....	.....	12.00	Dried brewers' grain, dried malt grains, old process oil meal, cottonseed meal, corn gluten feed, hominy feed, cocoanut meal, wheat bran, wheat middlings, ¾ of 1% salt, wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
Maritime Milling Co.	F.	24.69	5.90	54.86	5.16	9.39	10.85	
Buffalo, N. Y.								
Merrimack Dairy Ration	G.	20 00	5 00	50.00	....	.....	10.00	Corn gluten feed, linseed oil meal, cotton-seed meal, corn meal, wheat bran, wheat middlings not exceeding mill run of screenings, ground oats, ¾ of 1% salt.
Merrimack Farmers' Exchange	F.	23.91	4.82	56.37	4.91	9.99	10.00	
Concord, N. H.								
Noyes' Milk or Bust	G.	23.50	5.50	56.60	....	.....	8.50	Cottonseed meal, linseed oil meal, white hominy feed or corn meal, pure ground oats, bran, gluten, ¾ of 1% salt.
D. A. Noyes	F.	22.68	5.34	56 24	4.86	10.88	9.22	
Colebrook, N. H.								

Stevens' Economy Feed	G.	24.00	6 00	43 00	....	.....	8.00	Corn distillers' dried grains, wheat bran with mill run of screenings, wheat cereal by-products, old process linseed oil meal, hominy feed, gluten feed, rice bran, cottonseed meal, calcium carbonate and salt.
Park and Pollard Co. Boston, Mass.	F.	24.84	5.61	53.26	7.42	8.87	12.79	
Stevens' 44 Dairy Ration	G.	24.00	5.00	40.00	....	.....	14.00	Cottonseed meal, wheat bran with mill run screenings, corn gluten feed, cocoanut oil meal, peanut meal, brewers' dried grains, corn distillers' dried grains, calcium carbonate, corn meal, linseed oil meal, salt.
Park and Pollard Co. Boston, Mass.	F.	25.13	5.70	54.79	6.22	8.16	12.91	
Pillsbury's Dairy Ration	G.	20 00	4 00	50.00	....	.....	11.00	Ground oats, wheat bran, hominy feed, linseed oil meal, corn gluten feed, wheat standard middlings, cottonseed meal, mineral matter, calcium carbonate and sodium chloride.
Pillsbury Flour Mills Co. Minneapolis, Minn.	F.	20.05	6.00	57.86	6.86	9.23	10.96	
Iowa Dairy Feed	G.	24.00	5.00	45.00	....	.....	10.00	Linseed oil meal, gluten feed, alfalfa meal, wheat bran and middlings, corn meal, cottonseed meal, hominy feed, ground oats and molasses.
Purity Oats Co. Chicago, Ill.	F.	24.34	5.54	54.71	5.80	9.61	8.61	
Protena Dairy Feed	G.	16 50	3 50	55.00	....	.....	12.00	Cottonseed meal, gluten feed from corn, clipped oat by-products, ground wheat, screenings, molasses and 1% salt.
Ralston Purina Co. Buffalo, N. Y.	F.	17.60	3.89	62 05	7.20	9.26	11.84	
Purina 24% Cow Chow Feed	G.	24.00	4.30	53.00	....	.....	12.00	Linseed oil meal, old process, gluten feed, corn feed meal, cottonseed meal, molasses, ground alfalfa, 1% salt.
Ralston Purina Co. St. Louis, Mo.	F.	24.47	6.28	55.11	5.86	8.28	10.06	
New Hampshire Dairy Ration	G.	19 00	5 50	51.00	....	.....	7.50	Ground fancy oats, oil meal, bran, cottonseed meal, gluten feed, optional hominy or corn meal.
Rockingham County Farmers' Exchange Epping, N. H.	F.	20.97	6.10	58.20	4.64	10.09	7.96	
Paragon Dairy Feed	G.	22.00	4.00	44.00	....	.....	14.00	Cottonseed meal, linseed oil meal, corn gluten feed, oat feed, oat meal mill by-products, oat middlings, oat shorts, oat hulls, ground corn and corn screenings, wheat bran with ground screenings not exceeding mill run, not over 1% salt.
St. Albans Grain Co. St. Albans, Vt.	F.	23.64	4.12	58.01	5.16	9.07	12.59	

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Wirthmore Balanced Ration	G.	25.00	5.50	55.00	....	.....	11.00	Cottonseed meal, linseed meal, corn gluten feed, wheat middlings, wheat bran not exceeding mill run of screenings, corn distillers' grains, choice dried grains, corn meal or hominy, not over ¾ of 1% dairy salt.
St. Albans Grain Co.	F.	25.13	5.50	55.23	5.12	9.02	10.75	
St. Albans, Vt.								
Wirthmore Dairy Feed with Beet Pulp	G.	21.00	4.00	55.00	....	.....	12.00	Beet pulp, cottonseed meal, linseed meal, wheat bran, wheat middlings, corn distillers' grains, corn gluten feed, corn meal and not over ¾ of 1% dairy salt.
St. Albans Grain Co.	F.	23.91	5.89	58.12	4.44	9.64	10.69	
St. Albans, Vt.								
F. S. Co. Dairy Feed	G.	20 00	4 00	48.00	....	.....	10.50	Wheat feed, ground oats, corn gluten, corn meal, linseed, cottonseed and salt.
Frank Smith Co.	F.	20.14	5.72	58.52	4.32	11.30	9.17	
Lancaster, N. H.								
Red Brand Ti-O-Ga Dairy Feed	G.	23.00	3.50	45.00	....	.....	11.00	Wheat middlings, wheat bran, brewers' grains, corn gluten feed, cottonseed meal, cocoanut oil meal, linseed oil meal, cane molasses, corn distillers' grains, peanut oil meal, 1% salt.
Tioga Mill and Elvcator Co.	F.	25.66	5.88	55.16	5.73	7.57	8.13	
Waverly, N. Y.								
White Brand Ti-O-Ga Dairy Feed	G.	17.00	3 50	.....	....	.....	10.00	Cottonseed meal, corn feed meal, corn gluten feed, wheat middlings, wheat bran, cocoanut oil meal, peanut oil meal, cane molasses, 1% salt.
Tioga Mill and Elevator Co.	F.	21.62	5 23	57.95	5.57	9.63	7.66	
Waverly, N. Y.								
Union Grains Biles Dairy Ration	G.	24.00	5.00	50.00	....	.....	10.00	Corn distillers' dried grains, choice cottonseed meal, old process linseed meal, white wheat middlings, winter wheat bran, hominy meal, corn gluten feed, corn germ meal, brewers' dried grains, ½ of 1% salt.
Ubiko Milling Co.	F.	23.64	5.38	56.12	5.36	9.50	9.27	
Cincinnati, Ohio.								
Blue Seal Dairy Feed	G.	22 00	5 00	50.00	....	.....	10.00	Cottonseed meal, linseed oil meal, gluten feed, bran, corn meal, crushed fancy oats, bean meal and alfalfa.
H. K. Webster Co.	F.	22.00	5 (0	58.04	4.66	10.30	11.23	
Lawrence, Mass.								

Favorite Dairy Ration	G.	18.00	4.50	.....	....	.....	9.50	White hominy feed, cottonseed, corn, gluten, linseed meal, corn meal, ground oats, wheat bran, wheat middlings.
Westerly Grain and Flour Co.	F.	21.28	6.14	58.00	4.39	10.19	7.89	
Westerly, R. I.								
HOMINY FEEDS								
Bufceco Hominy Feed	G.	10.00	5 00	.....	....	.....	6.00	
Armour Grain Co.	F.	10.59	6.48	68.93	2.07	11.93	.....	
Chicago, Ill.								
Crosby's Fine White Hominy	G.	10.00	6.00	.....	....	.....	6.00	
Crosby Milling Co.	F.	10.00	5.02	71.69	1.99	11.30	.....	
Brattleboro, Vt.								
"Emco" Evans' Hominy Feed	G.	10 00	7 50	55.00	....	.....	7.00	Made from corn. Pure and free from mixture.
Evans Milling Co.	F.	11.67	8.80	65.86	2.80	10.87	.....	
Indianapolis, Ind.								
Mystic White Hominy Feed	G.	8.50	4.00	65.00	....	.....	5.00	
International Milling Co.	F.	10.63	4.32	70.68	1.21	13.16	.....	
Sioux City, Iowa.								
B. C. White Hominy Feed	G.	10.00	6 00	55 00	....	.....	5.00	Pure white corn.
Kellogg Toasted Corn Flake Co.	F.	10.86	7.48	68.11	2.39	11.16	.....	
Battle Creek, Mich.								
Hominy Feed	G.	10.00	5.00	.....	....	.....	10.00	Made from corn.
National Feed Co.	F.	10.77	8.49	69.77	2.37	8.60	.....	
St. Louis, Mo.								
Hominy Feed	G.	10 00	5 00	60.00	....	.....	5.00	
Patent Cereal Co.	F.	11.42	5.84	68.07	2.75	11.92	.....	
Geneva, N. Y.								
Burt's Hominy Feed	G.	10.00	6 00	60.00	....	.....	5.00	Made from white corn.
Postum Cereal Co.	F.	11.82	5.75	69.14	3.13	10.16	.....	
Battle Creek, Mich.								
Yellow Hominy Feed	G.	10.50	6.00	64.00	....	.....	5.00	
Quaker Oats Co.	F.	10.97	7.08	70.17	2.21	9.57	.....	
Peterborough and Saskatoon, Canada.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
GLUTEN FEEDS								
Cream of Corn Gluten Feed	G.	23.00	1.50	.....	....	.....	8.50	
American Maize Products Co. New York, N. Y.	F.	25.70	4.05	61.01	2.51	6.73	.....	
Corn Gluten Feed	G.	25 00	3.00	.....	....	.....	8.00	
Canada Starch Co. Cardinal, Ont.	F.	28.98	2.77	57.10	3.81	7.34	.....	
Diamond Corn Gluten Meal	G.	40.00	1.00	40.00	....	.....	4.00	
Corn Products Refining Co. New York, N. Y.	F.	42.51	1.50	44.50	1.13	10.36	.....	
Jenk's Corn Gluten Feed	G.	22.00	3.00	.....	....	.....	8.00	Not colored, corn starch by-products with corn bran.
Huron Milling Co. Harbor Beach, Mich.	F.	22.12	6.52	62.45	2.38	6.53	.....	
Staley's Corn Gluten Feed	G.	23 00	1.00	50.00	....	.....	8.00	
A. E. Staley Mfg. Co. Decatur, Ill.	F.	23.21	1.66	63.22	2.88	9.03	.....	
LINSEED MEALS								
Alinco Old Process Linseed Oil Meal	G.	35 00	5.00	.....	....	.....	8.00	
American Linseed Co. Buffalo, N. Y.	F.	33.71	6.03	45.19	4.86	10.21	.....	
Old Process Linseed Meal	G.	30.00	5.00	30.00	....	.....	10.00	
American Milling Co. Peoria, Ill.	F.	30.17	6.28	47.91	5.24	10.40	.....	
Old Process Ground Oil Cake	G.	34.00	5 00	.....	....	.....	10.00	
Archer-Daniels Linseed Co. Buffalo, N. Y.	F.	34.00	7.15	45.14	4.84	8.87	.....	

Pure Old Process Oil Meal	G.	37.00	7.00	.....	....	.....	9.00	
Kelloggs and Miller	F.	33.10	6.35	45.58	6.18	8.79	.....	
Amsterdam, N. Y.								
Pure Old Process Linseed Oil Meal	G.	35 00	6 00	.....	....	.....	10.00	
Mann Bros. Co.	F.	33.11	6.23	44.75	4.75	11.16	.....	
Buffalo, N. Y.								
Kellogg's Oil Meal, Pure Old Process	G.	31.00	5.00	45.00	....	.....	10.00	
Spencer Kellogg and Sons, Inc.	F.	33.54	5.93	45.55	6.26	8.72	.....	
Buffalo, N. Y.								
OAT FEED								
Purity Oat Feed	G.	5.00	1.50	.....	....	.....	30.00	Oat middlings, oat shorts, oat hulls.
Purity Oats Co.	F.	5.43	2.03	79.01	7.04	6.49	.....	
Davenport, Iowa.								
POULTRY FEEDS								
Protox Meat Scraps	G.	55.00	10.00	.....	....	.....	....	Pure ground meat scraps, A. A. quality.
American Agricultural Chemical Co.	F.	56.88	15.80	.....	21.38	4.37	.....	
New York, N. Y.								
Iroquois Poultry Mash	G.	15 00	4 00	60.00	....	.....	6.00	Corn feed meal, hominy feed, corn gluten feed, oat middlings, oat meal, wheat bran and wheat middlings containing mill run ground screenings, ½ of 1% salt.
Armour Grain Co.	F.	16.69	5.62	63.32	4.08	10.29	6.61	
Chicago, Ill.								
Burlington Poultry Feed	G.	50.00	12.00	.....	....	.....	.....	Prepared from cooked meat and bone scraps, animal products.
Burlington Rendering Co.	F.	51.93	9.27	.....	25.49	5.91	.....	
Burlington, Vt.								
Clover Leaf Egg Mash	G.	18.00	4 00	50 00	....	.....	11.00	Pure old process linseed meal, ground oat meal, meat meal, fish meal, corn feed meal, corn gluten meal, wheat bran, wheat middlings, alfalfa meal, dried buttermilk, ½ of 1% fine table salt.
Clover Leaf Milling Co.	F.	23.99	5.59	54.85	5.86	9.71	8.43	
Buffalo, N. Y.								
Conkey's Buttermilk Grain and Bone Starting Feed								
G. E. Conkey Co.	G.	12.00	3.00	60.00	....	.....	4.00	Hulled oats, wheat middlings, corn meal, corn feed meal, buttermilk, bone.
Cleveland, Ohio.	F.	13.75	5.51	64.33	5.55	10.86	3.37	

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Climax Mash E. A. Cowee Co. Fitchburg, Mass.	G. F.	20 00 20.36	3 5 4.8	45.00 51.42	.... 13.19	..... 10.19	10.00 7.72	Wheat bran, oats, gluten, corn, middlings, linseed, bone and meat, meat and fish scraps.
Laying Mash J. Cushing Co. Fitchburg, Mass.	G. F.	20.00 22.16	5.0 6.2	45.00 53.51	.... 7.67	..... 10.32	7.00 6.02	Dried buttermilk, meat and fish scraps, wheat middlings, corn feed meal, wheat bran, corn gluten feed, ground oats, ground barley, hominy feed, 2% old process linseed meal, 1% alfalfa meal.
Dow's Beef Scraps, Ground John C. Dow Co. Boston, Mass.	G. F.	43 00 45.18	12 (14 1	....	.... 26.54	..... 7.51	....	Made from meat scraps.
Capital Meat and Bone Scraps Furbush and Co. Boston, Mass.	G. F.	40.00 42.25	10 (11.	....	.... 35.89	..... 6.80	....	Made from meat and bone scraps.
Grandin's Poultry Dry Mash D. H. Grandin Milling Co. Jamestown, N. Y.	G. F.	20 00 23.47	3 4.7	50.00 52.17	.... 10.33	..... 9.34	10.00 8.15	Ground fish, ground meat and bone, corn gluten meal, corn gluten feed, wheat bran, wheat middlings, corn meal, corn feed meal, hominy feed, ground oats, ground scratch feed, screenings consisting of corn, wheat, barley, kaffir corn, milo maize and buckwheat, powdered buttermilk, alfalfa meal, calcium carbonate and a small per cent. of salt, wheat bran and wheat middlings may contain ground screenings not exceeding mill run.
Greene's Poultry Food Greene Chick Feed Co. Marblehead, Mass.	G. F.	45.00 40.15	10.00 11.84	....	.... 37.76	..... 7.31	....	Made of meat, bone and salt.

Red Comb Egg Mash	G.	20.00	4 50	45 00	....	.....	9.00	Corn feed meal, ground oats, wheat bran, wheat middlings, corn gluten feed, linseed oil meal, meat scraps, alfalfa meal, dried buttermilk and not over 5% of calcium carbonate.
Hales and Hunter Co.	F.	17.72	5.74	53.96	11.34	11.24	8.63	
Chicago, Ill.								
Hinckley Poultry Feed	G.	40.00	8.00	.....	....	.....	.....	Cooked meat and bone scraps, animal products.
Hinckley Rendering Co.	F.	46.39	9.68	.....	32.34	5.71	....	
Somerville, Mass.								
Illinois Laying Mash	G.	18 00	4 50	50.00	....	.....	9.00	Oat middlings, oat flour, wheat bran, wheat middlings, corn feed meal, alfalfa flour, granulated meat meal, ground oats and pure, dried buttermilk.
Illinois Feed and Elevator Co.	F.	19.61	5.31	58.78	5.72	10.58	8.01	
Bloomington, Ill.								
Blue Tag Egg Mash	G.	20.00	5.00	....	.....	.....	7.00	Meat scraps, fish meal, dried buttermilk, fine alfalfa meal, corn meal, wheat bran, wheat middlings with mill screenings, corn flour, Badger hominy feed and salt.
Charles A. Krause Milling Co.	F.	20.00	5.73	57.93	4.98	11.36	6.03	
Milwaukee, Wis.								
Poultry Mash	G.	11.00	2 50	60 00	....	.....	7.00	Wheat and wheat by-products, corn and corn by-products, gluten meal, alfalfa meal, barley meal, oil meal and a small amount of salt.
McQuesten and Lewis	F.	19.39	4.07	56.92	8.69	10.93	6.85	
Manchester, N. H.								
Manchester Poultry Feed	G.	40.00	8.00	.....	....	.....	.....	Cooked meat and bone scraps. animal products.
Manchester Rendering Co.	F.	44.43	12.34	.....	32.38	7.66	....	
Manchester, N. H.								
Marsh's Diamond Special Pure Ground Scraps	G.	50 80	10 15	.....	....	.....	.....	Prepared from carefully selected cooked meat and bone scraps.
George E. Marsh Co.	F.	51.99	12.24	.....	28.63	7.01	.....	
Lynn, Mass.								
Growing Feed	G.	10.00	1.50	50.00	....	.....	8.00	Ground corn, wheat, oats, barley, meat and bone meal, wheat bran with mill run of screenings, wheat middlings, dried buttermilk, calcium carbonate and salt.
Park and Pollard Co.	F.	15.72	4.32	61.77	6.90	11.29	7.17	
Boston, Mass.								
Lay or Bust Dry Mash	G.	18.00	1 50	40 00	....	.....	12.00	Ground corn, wheat, wheat screenings, oats, barley, kaffir corn, buckwheat, alfalfa, fish, meat, bone, wheat bran with mill run of screenings, wheat middlings, calcium carbonate, salt and dried buttermilk.
Park and Pollard Co.	F.	20.84	4.71	55.35	9.46	9.64	6.29	
Boston, Mass.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Leghorn Special Lay or Bust	G.	21.00	1.50	40.00	....	.....	10.00	Ground corn, wheat, wheat screenings, barley, oats, kaffir corn, buckwheat, wheat bran, wheat middlings, alfalfa, fish, meat, bone, calcium carbonate, salt and dried buttermilk.
Park and Pollard Co.	F.	21.28	6.29	51.68	10.16	10.59	7.96	
Boston, Mass.								
Pratt's Baby Chick Food	G.	11.50	3.50	69.00	....	.....	3.80	Dried buttermilk, corn meal, wheat middlings, oat meal, cooked wheat, epsom salts, bone meal, millet and rape.
Pratt Food Co.	F.	14.36	4.19	63.79	8.04	9.62	3.80	
Philadelphia, Pa.								
Iowa Buttermilk Egg Mash	G.	20.00	5.00	.....	....	.....	10.00	Dried buttermilk, corn gluten feed, corn meal, corn germ meal, hominy feed, ground oat meal, bran, standard middlings, pulverized meat, alfalfa meal, calcium carbonate, charcoal, rock phosphate and 1% table salt.
Purity Oats Co.	F.	20.75	6.41	56.37	7.48	8.99	8.66	
Davenport, Iowa.								
Iowa Buttermilk Growing Mash	G.	.....	.....	.....	....	.....	.....	
Purity Oats Co.	F.	18.39	7.57	59.06	6.19	8.79	5.73	
Davenport, Iowa.								
Full-O-Pep Dry Mash	G.	20.00	4.00	45.00	....	.....	10.00	Hominy feed, yellow hominy feed, corn gluten feed, oat meal, cottonseed meal, wheat bran and wheat middlings with ground wheat screenings not exceeding mill run, bone meal, fish meal, meat scraps, alfalfa meal, ground grain screenings from wheat.
Quaker Oats Co.	F.	22.07	5.93	54.54	9.39	8.07	7.95	
Chicago, Ill.								
Purina Chicken Chowder Feed	G.	19.00	4.00	55.00	....	.....	10.00	Wheat middlings, wheat bran, gluten feed from corn, corn meal, alfalfa flour, linseed flour, granulated meat, charcoal, not over 1% salt.
Ralston Purina Co.	F.	19.44	4.42	60.47	6.86	8.81	8.92	
Buffalo, N. Y.								

New Hampshire Poultry Ration Dry Mash Rockingham County Farmers' Exchange Epping, N. H.	G. F.	20.00 23.56	5.00 7.10	41.00 52.26	.... 6.96	..... 10.12	6.00 5.69	Gluten feed, red dog middlings, oat meal, bran, hominy, high grade meat scraps.
Wirthmore Buttermilk Mash Feed .... St. Albans Grain Co. ..... St. Albans, Vt.	G. F.	20.00 22.77	4 00 5.35	50.00 53.59	.... 9.42	..... 8.87	8.50 5.82	Pure dried buttermilk albumen, ground oats, barley, corn, wheat, bran, wheat middlings not exceeding mill run of screenings, corn gluten feed, beet pulp, ground rolled oats, choice fine ground beef scraps, fish meal, linseed meal, buckwheat, about ¾ of 1% salt.
Wirthmore Growing Feed ..... St. Albans Grain Co. ..... St. Albans, Vt.	G. F.	15.00 18.04	4.50 5.28	50.00 58.39	.... 7.34	..... 10.95	4.50 6.15	Pure dried buttermilk, dried milk albumen, bone meal, ground wheat, corn, oats, barley peas, milo maize, wheat bran, wheat middlings not exceeding mill run of screenings, red dog flour and choice fine ground beef scraps.
Ti-O-Ga Laying Food ..... Tioga Mill and Elevator Co. ..... Waverly, N. Y.	G. F.	17 00 21.67	2 50 5.01	..... 54.04	5.00 8.34	..... 10.94	6.00 5.43	Wheat middlings, corn gluten meal, corn feed meal, meat and bone scraps, 2½% phosphate of lime, linseed oil meal, wheat bran, corn gluten feed.
Blue Seal Dry Mash ..... H. K. Webster Co. ..... Lawrence, Mass.	G. F.	16.00 18.74	3.00 5.12	55.00 60.05	.... 5.37	..... 10.72	10.00 6.91	Wheat feed, corn meal, gluten feed, rolled oats, ground oats, beef scraps, fish scraps, oil meal and calf meal.
WHEAT FEEDS								
Al Trojan Farm Feed ..... Allen and Wheeler Co. ..... Troy, Ohio.	G. F.	16.00 16.29	4 00 4.40	..... 64.67	.... 4.27	..... 10.37	6.00	Wheat middlings, ground wheat screenings.
Trojan Bran ..... Allen and Wheeler Co. ..... Troy, Ohio.	G. F.	14.50 15.33	4.00 4.44	52.00 63.35	.... 6.77	..... 10.11	9.50	Pure wheat feed.
Trojan Coarse Bran ..... Allen and Wheeler Co. ..... Troy, Ohio.	G. F.	13 50 15.74	4 00 5.21	..... 61.06	.... 5.87	..... 12.12	13.00	

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Trojan Mixed Feed Allen and Wheeler Co. Troy, Ohio.	G. F.	15.50 15.85	4.00 4.87	52.00 63.23	.... 5.43	..... 10.62	8.00	Ground screenings not exceeding mill run.
Bran Ansted and Burk Co. Springfield, Ohio.	G. F.	15.50 14.53	4.06 4.29	55.25 62.77	.... 6.03	..... 12.38	9.50	Wheat bran with ground screenings not exceeding mill run.
Middlings Ansted and Burk Co. Springfield, Ohio.	G. F.	16.25 16.29	4.00 4.77	61.50 62.24	.... 4.24	..... 12.46	5.75	Wheat middlings with ground screenings not exceeding mill run.
Mixed Feed Ansted and Burk Co. Springfield, Ohio.	G. F.	15 50 15.50	4 00 4.36	60.50 65.84	.... 5.15	..... 9.15	8.50	Mixed feed with ground screenings not exceeding mill run.
Red Dog Ansted and Burk Co. Springfield, Ohio.	G. F.	15.00 15.19	3.20 3.75	64.50 67.21	.... 2.34	..... 11.51	3.50	
White Middlings Ansted and Burk Co. Springfield, Ohio.	G. F.	13.50 12.52	3.00 5.85	..... 66.67	.... 3.13	..... 11.83	5.50	Red dog flour, wheat middlings, corn bran and corn meal, wheat sereenings.
Wheat Bran and Wheat Screenings Anthony Mills Anthony, Kansas.	G. F.	14.50 14.89	3.50 4.63	49.00 62.94	.... 6.15	..... 11.39	11.00	Not exceeding 8% screenings.
E-A-Co. Middlings Everett Aughinbaugh and Co. Waseco, Minn.	G. F.	15 00 16.03	3.00 5.16	50.00 62.82	.... 4.42	..... 11.57	10.00	Ground screenings not exceeding mill run.
Capital Mixed Feed E. W. Bailey and Co. Swanton, Vt.	G. F.	14.00 16.99	3.00 5.38	60.00 62.49	.... 4.25	..... 10.89	7.00	Wheat bran and second clear flour.

Pure Winter Bran	G.	14.50	4.00	54 00	....	.....	10.00	
E. W. Bailey and Co.	F.	18.30	4.49	60.68	5.82	10.71	....	
Montpelier, Vt.								
Bran	G.	14.50	4.50	.....	....	.....	12.00	Not exceeding mill run of screenings.
Baldwin Flour Mills Co.	F.	15.89	5.30	62.22	6.20	10.39	.....	
Minneapolis, Minn.								
Wheat Feed	G.	12 00	3.00	.....	....	.....	10.00	Wheat bran and middlings with ground
C. W. Brister and Son	F.	15.24	4.38	63.61	4.63	12.14	.....	screenings not exceeding mill run.
Auburn, N. Y.								
Battleship Low Grade	G.	16.50	4.50	.....	....	.....	4.00	
Commander Mill Co.	F.	18.91	4.91	61.05	3.15	11.98	.....	
Minneapolis, Minn.								
Coarse Bran	G.	15.00	5.00	....	....	.....	11.00	Ground screening not exceeding mill run.
Crookston Milling Co.	F.	16.97	5.37	61.32	5.37	10.97	.....	
Crookston, Minn.								
Clinton Mixed Feed	G.	14 00	3.00	60.00	....	.....	7.00	Wheat bran, wheat middlings, rye feed, with
Cunningham Grain Co.	F.	16.29	4.86	63.36	3.75	11.74	7.00	mill run of screenings and red dog.
Malden, Mass.								
Mixed Feed	G.	14.80	4.30	64.40	....	.....	7.80	Wheat bran, middlings and low grade flour
J. Cushing Co.	F.	16.24	4.33	63.09	4.50	11.84	.....	with ground screenings not exceeding mill run.
Fitchburg, Mass.								
Wheat Bran	G.	14.00	3.00	.....	....	.....	10.00	
Dominion Flour Mills	F.	15.37	5.31	63.16	5.21	10.95	.....	
Montreal, Canada.								
Wheat Bran	G.	15.00	3.50	.....	....	.....	11.50	
Dominion Flour Mills	F.	16.11	6.21	59.82	5.43	12.43	.....	
Montreal, Canada.								
Wheat Middlings	G.	15.00	4.00	.....	....	.....	8.00	Mill run of screenings.
Dominion Flour Mills	F.	16.42	5.57	61.91	4.63	11.47	.....	
Montreal, Canada.								
Wheat Shorts	G.	15 00	4.00	.....	....	.....	8.00	Mill run of screenings.
Dominion Flour Mills	F.	18.43	6.04	59.62	3.93	11.98	.....	
Montreal, Canada.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Duluth Imperial Bran	G.	15.50	4.50	64.00	....	.....	11.75	Wheat bran with ground screenings not exceeding mill run.
Duluth-Superior Milling Co.	F.	16.42	5.22	61.12	5.42	11.82	.....	
Duluth, Minn.								
Durum Wheat Bran	G.	15.50	4.50	64.00	....	.....	11.75	Ground screenings not exceeding mill run.
Duluth-Superior Milling Co.	F.	16.42	5.66	59.75	5.18	12.99	.....	
Duluth, Minn.								
Red Dog Flour	G.	17.00	3.75	60.60	....	.....	3.75	
Duluth-Superior Milling Co.	F.	17.78	4.29	64.26	2.40	11.27	.....	
Duluth, Minn.								
Eagle Roller Mill Co.'s Wheat Bran ...	G.	14 00	3.40	49.00	....	.....	12.00	Ground screenings not exceeding mill run.
Eagle Roller Mill Co.	F.	14.71	5.35	63.09	6.07	10.78	.....	
New Ulm, Minn.								
Lucky Bran	G.	15.00	4.00	46.50	....	.....	12.00	Ground screenings not exceeding mill run.
Federal Mill and Elevator Co.	F.	15.98	5.11	61.10	5.97	11.84	.....	
Lockport, N. Y.								
Lucky Middlings	G.	16.50	5.00	50.00	....	.....	7.50	Ground screenings not exceeding mill run.
Federal Mill and Elevator Co.	F.	16.50	4.85	63.02	3.59	12.04	.....	
Lockport, N. Y.								
Lucky Mixed Feed	G.	15.50	4.50	48.00	....	.....	10.50	Hard wheat bran and hard wheat middlings with ground screenings not exceeding mill run.
Federal Mill and Elevator Co.	F.	16.42	5.03	61.44	5.30	11.81	.....	
Lockport, N. Y.								
Sphinx Fancy Mixed Feed	G.	15 50	4.50	48.00	....	.....	10.00	Ground screenings not exceeding mill run.
Federal Mill and Elevator Co.	F.	16.29	5.18	62.71	4.89	10.93	.....	
Lockport, N. Y.								
Improved Grafton Wheat Feed	G.	14.00	2.70	64.00	....	.....	8.40	
Grafton Roller Mills	F.	15.68	6.17	62.48	4.90	10.77	.....	
Grafton, N. Dak.								

Gwinn's Dairy Feed	G.	14.00	4.00	.....	....	.....	11.00	Soft winter wheat with ground screenings not exceeding mill run.
Gwinn Milling Co.	F.	15.15	4.57	64.13	4.84	11.31	.....	
Columbus, Ohio.								
Gwinn's Wheat Bran	G.	13.00	4.00	.....	....	.....	13.50	Screenings not exceeding mill run.
Gwinn Milling Co.	F.	14.45	4.08	63.83	6.01	11.63	.....	
Columbus, Ohio.								
Choice Wheat Bran	G.	13 50	3.00	48.00	....	.....	14.00	Ground screenings not exceeding mill run.
Hecker-Jones-Jewell Milling Co.	F.	14.45	5.04	63.09	6.37	11.05	.....	
Buffalo, N. Y.								
Granite State Mixed Feed	G.	15.00	4.00	55.00	....	.....	8.50	Wheat bran and wheat red dog flour with ground screenings not exceeding mill run.
E. C. and W. L. Hopkins	F.	15.15	4.41	65.70	3.65	11.09	.....	
Greenfield, N. H.								
Our Special Mixed Feed	G.	14.00	4.00	55.00	....	.....	10.00	Wheat bran and wheat red dog flour with ground screenings not exceeding mill run.
E. C. and W. L. Hopkins	F.	16.81	5.09	63.26	3.71	11.13	.....	
Greenfield, N. H.								
Jenks' Mixed Feed	G.	12.50	3.50	68.00	....	.....	11.50	Ground screenings not exceeding mill run.
Huron Milling Co.	F.	14.54	4.60	64.41	5.24	11.21	.....	
Harbor Beach, Mich.								
Blackhawk Pure Wheat Bran	G.	15 50	3.20	50.00	....	.....	12.00	
International Milling Co.	F.	15.68	5.10	61.99	7.06	10.17	.....	
Minneapolis, Minn.								
I-H Wheat Bran	G.	14.50	3.50	48.00	....	.....	11.00	Mill run of ground screenings not to exceed 8%.
Ismert-Hincke Milling Co.	F.	16.30	4.48	63.24	4.56	11.42	.....	
Kansas City, Mo.								
Pure Wheat Bran	G.	14.50	4.50	.....	....	.....	11.50	
W. J. Jennison Co.	F.	15.59	5.60	63.62	5.57	9.62	.....	
Minneapolis, Minn.								
Palace Wheat Bran	G.	14.50	4.00	54.00	....	.....	10.00	Mill run ground wheat screenings not exceeding 8%.
Kehlor Flour Mills Co.	F.	16.81	4.81	60.94	6.30	11.14	.....	
St. Louis, Mo.								
Blue Tag Mixed Feed	G.	19 00	7.00	.....	....	.....	7.50	
F. W. Kelley Co.	F.	16.20	4.86	64.03	4.92	9.99	.....	
St. Johnsbury, Vt.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Lakewood Wheat Bran	G.	15.00	3.50	.....	....	.....	11.50	Ground screenings not exceeding mill run.
Lake of the Woods Milling Co. Montreal, Canada.	F.	16.29	5.94	61.19	5.71	10.87	.....	
Golden Bull Bran	G.	14.50	3.00	48 00	....	.....	13.00	Pure wheat product containing ground screenings not exceeding mill run.
Lawrenceburg Roller Mills Co. Lawrenceburg, Ind.	F.	15.92	3.69	62.86	6.14	11.39	.....	
LcGrade Mixed Feed	G.	15.00	4.00	.....	....	.....	7.00	
Londonville Mill and Grain Co. Londonville, Ohio.	F.	15.06	4.29	64.22	5.43	11.00	.....	
Shorts	G.	....	....	.....	....	.....	.....	
Maple Creek Flour Mills Maple Creek, Sask.	F.	18.39	5.34	61.22	3.31	11.74	.....	
Rex Wheat Shorts	G.	16.00	5.50	51.00	....	.....	10.00	Screenings not exceeding mill run.
Maple Leaf Milling Co. Toronto, Canada.	F.	17.04	5.89	60.95	4.24	11.88	.....	
Wheat Bran	G.	14.00	4.50	48 00	....	.....	10.00	
Maple Leaf Milling Co. Toronto, Canada.	F.	16.03	5.94	64.26	5.13	8.64	....	
Wheat Bran	G.	15.00	4.50	49.00	....	.....	11.00	
Maple Leaf Milling Co. Toronto, Canada.	F.	16.95	5.56	59.44	5.51	12.51	.....	
Mayflower Bran	G.	14 00	4.00	64.00	....	.....	11.00	Wheat bran with not exceeding mill run ground screenings.
Mayflower Mills Fort Wayne, Ind.	F.	14.58	4.90	62.79	6.07	11.66	.....	
Mayflower Middlings	G.	14.00	4.00	63.00	....	.....	9.00	
Mayflower Mills Fort Wayne, Ind.	F.	15.68	5.23	61.73	4.99	12.37	.....	Wheat middlings with not exceeding mill run ground screenings.

Wheat Bran	G.	14.50	3.50	49 00	....	.....	11.00	Ground wheat screenings not exceeding 8%.
Midland Flour Milling Co. Kansas City, Mo.	F.	16.55	4.54	61.62	6.58	10.71	.....	
Wheat Bran	G.	14.50	4.00	54.00	....	.....	10.00	Screenings not exceeding mill run.
National Feed Co. St. Louis, Mo.	F.	17.25	4.61	60.46	8.62	9.06	....	
Osota Feed	G.	15 00	4.50	49.00	....	.....	10.00	Wheat bran, salt, middlings, ground screenings not exceeding mill run.
National Milling Co. Toledo, Ohio.	F.	17.08	5.36	60.20	5.35	12.01	.....	
Pennant Feed	G.	15.00	3.75	49.00	....	.....	8.50	Wheat bran, wheat middlings, salt, wheat flour, ground screenings not exceeding mill run.
National Milling Co. Toledo, Ohio.	F.	16.03	4.66	62.17	4.94	12.20	....	
Niagara Choice Middlings	G.	15.50	3.50	....	....	.....	10.00	Trace of scourings.
Niagara Falls Milling Co. Niagara Falls, N. Y.	F.	17.30	5.58	60.91	4.23	11.98	.....	
Niagara Choice Mixed Feed	G.	14.50	2.50	.....	....	.....	9.00	No ground screenings.
Niagara Falls Milling Co. Niagara Falls, N. Y.	F.	16.90	4.57	63.34	4.90	10.29	.....	
Niagara Choice Wheat Bran	G.	15.00	3.50	.....	....	.....	11.00	No ground screenings.
Niagara Falls Milling Co. Niagara Falls, N. Y.	F.	16.38	5.16	63.14	6.05	9.27	.....	
Planet Feed	G.	15.00	4.00	55.00	....	.....	8.00	No screenings, no scourings.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	F.	16.03	5.56	62.01	4.53	11.87	.....	
Pure Wheat Bran	G.	13.00	4.00	50 00	....	.....	13.00	No screenings, no scourings.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	F.	14.45	5.86	63.08	5.74	10.87	.....	
Standard Middlings	G.	14.00	4.00	53.00	....	.....	11.00	Ground screenings not exceeding mill run.
Northwestern Consolidated Milling Co. Minneapolis, Minn.	F.	16.90	5.48	61.90	4.76	10.96	.....	
Wheat Bran	G.	14 00	3.00	57.00	....	.....	10.00	
Ogilvie Flour Mills Co. Winnipeg, Canada.	F.	15.87	5.83	59.48	6.30	12.52	.....	

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Wheat Middlings	G.	15.00	4.00	57.00	....	.....	8.00	Ground screenings not exceeding mill run.
Ogilvie Flour Mills Co. Montreal, Canada.	F.	18.04	5.75	60.05	4.04	12.12	.....	
Flour Middlings	G.	16.00	5.00	.....	....	.....	6.00	Screenings not exceeding mill run.
Park and Pollard Co. Boston, Mass.	F.	15.59	4.47	65.04	3.36	11.54	.....	
Pretty Special Mixed Feed	G.	16.00	4.00	50.00	....	.....	9.00	Red dog flour, wheat bran, mill run ground screenings.
Park and Pollard Co. Boston, Mass.	F.	16.29	4.36	62.98	4.00	12.37	.....	
Pillsbury's XX Daisy	G.	16 00	4.00	60.00	....	.....	4.00	Pure wheat product, low grade wheat flour.
Pillsbury Mills Minneapolis, Minn.	F.	19.09	4.74	61.28	3.45	11.44	.....	
Pillsbury's Wheat Bran	G.	14.00	4.00	50.00	....	.....	12.00	Ground screenings not exceeding mill run.
Pillsbury Mills Minneapolis, Minn.	F.	15.64	5.26	60.90	5.78	12.42	....	
Standard B. Middlings	G.	15.00	4.00	52 00	....	.....	9.50	Ground screenings not exceeding mill run.
Pillsbury Mills Minneapolis, Minn.	F.	15.94	4.92	62.33	4.80	12.01	.....	
Bran	G.	15.00	3.00	55.00	....	.....	11.00	Wheat bran with wheat screenings not exceeding mill run.
George P. Plant Milling Co. St. Louis, Mo.	F.	14.69	3.91	66.19	6.78	8.43	.....	
Bran	G.	13 00	3.00	50.00	....	.....	10.50	Winter wheat.
Quaker City Flour Mills Co. Philadelphia, Pa.	F.	15.15	4.11	64.06	5.90	10.78	.....	
Bell Cow Bran	G.	15.30	5.50	56.00	....	.....	7.60	
Quaker Oats Co. Chicago, Ill.	F.	16.11	5.60	61.73	5.62	10.94	.....	

Alta Pure Wheat Middlings	G.	15.00	4.50	55 00	....	.....	8.50	Mill run of standard middlings and flour mid-
Russell-Miller Milling Co.	F.	17.34	5.84	61.14	3.96	11.72	.....	dings mixed.
Minneapolis, Minn.								
Bran	G.	13.00	4.00	52.00	....	.....	11.00	
Russell-Miller Milling Co.	F.	17.65	6.05	58.54	6.61	11.15	.....	
Minneapolis, Minn.								
Wheat Occident Feed	G.	15 00	4.50	54.00	....	.....	10.00	Mil' run of bran, middlings and red dog.
Russell-Miller Milling Co.	F.	16.38	6.05	60.85	4.80	11.92	.....	
Minneapolis, Minn.								
Wheat Bran and Wheat Screenings ...	G.	14.50	3.50	.....	....	.....	11.00	Not to exceed 8% screenings.
Russell Milling Co.	F.	16.81	4.27	62.08	6.42	10.42	.....	
Russell, Kansas.								
Wirthmore Wheat Feed	G.	15.00	4.50	50 00	....	.....	8.00	Less than mill run of screenings.
St. Albans, Grain Co.	F.	15.54	4.21	64.84	3.48	11.93	.....	
St. Albans, Vt.								
Bran	G.	15.00	3.50	.....	....	.....	11.50	
St. Lawrence Flour Mills Co. ,.....	F.	15.85	5.39	62.81	6.36	9.59	.....	
Montreal, Canada.								
Koma Standard Middlings	G.	15.00	4.50	.....	....	.....	9.50	Ground screenings not exceeding mill run.
St. Paul Milling Co.	F.	15.15	5.86	62.46	4.35	12.18	.....	
St. Paul, Minn.								
Gold Mine Feed	G.	15.00	4.50	53.00	....	.....	10.00	Bran, shorts, low grade flour, all wheat
Sheffield-King Milling Co.	F.	16.77	4.84	61.82	5.49	11.08	.....	products and pulverized wheat screenings.
Minneapolis, Minn.								
Modoc Pure Wheat Product	G.	17.00	4.00	60.00	....	.....	4.00	
Sheffield-King Milling Co.	F.	18.65	4.42	61.75	3.10	12.08	.....	
Minneapolis, Minn.								
Middlings	G.	16.00	4.00	50.00	....	.....	7.00	Pure wheat.
F. W. Stock and Sons	F.	17.78	5.06	61.40	4.14	11.62	.....	
Hillsdale, Mich.								
Monarch Fancy Feed	G.	16.00	4.00	50.00	....	.....	10.00	Mill run screenings.
F. W. Stock and Sons	F.	16.99	4.86	61.54	5.38	11.23	.....	
Hillsdale, Mich.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Superior Wheat Feed and Flour	G.	16.00	4.50	....	....	.....	7.00	Mill run screenings.
F. W. Stock and Sons	F.	16.81	4.63	62.63	4.23	11.70	.....	
Hillsdale, Mich.								
Columbus Heavy Mixed Feed	G.	14.00	3.50	57.50	....	.....	6.50	Wheat flour, bran and middlings.
David Stott Flour Mills	F.	14.80	4.17	64.68	4.47	11.88	.....	
Detroit, Mich.								
Pennant Middlings	G.	15.00	4.00	57.00	....	.....	9.00	Brown wheat middlings with ground screenings not exceeding mill run.
David Stott Flour Mills	F.	15.50	4.94	61.33	6.77	11.46	.....	
Detroit, Mich.								
Stott's Fine White Middlings	G.	15 50	4.00	60.00	....	.....	6.50	Fine white middlings.
David Stott Flour Mills	F.	16.03	4.00	64.49	3.50	11.98	.....	
Detroit, Mich.								
Stott's Honest Mixed Feed	G.	14.50	4.00	56.00	....	.....	10.50	Pure winter wheat, wheat bran and middlings.
David Stott Flour Mills	F.	16.46	5.01	62.15	4.44	11.94	.....	
Detroit, Mich.								
Stott's Winner Feed	G.	8.50	3.50	63.00	....	.....	10.00	
David Stott Flour Mills	F.	7.53	4.07	72.57	4.55	11.28	.....	
Detroit, Mich.								
Fancy Bran	G.	15.00	4.00	64.00	....	.....	11.00	Mill run screenings ground in.
Stratton and Co.	F.	15.68	4.52	63.66	5.50	10.64	.....	
Concord, N. H.								
Stratton and Co.'s Mixed Feed	G.	15 29	4.30	63.00	....	.....	7.93	Screenings not exceeding mill run.
Stratton and Co.	F.	16.11	4.32	62.90	5.03	11.64	.....	
Concord, N. H.								
Angelus Wheat Bran	G.	15.00	4.00	47.00	....	.....	12.00	Ground screenings not exceeding mill run, hard wheat bran and ground screenings.
Thompson Milling Co.	F.	17.34	4.39	60.35	6.50	11.42	.....	
Lockport, N. Y.								

T. and C. Mixed Feed	G.	16.00	5.00	50 00	....	.....	9.00	Wheat bran and middlings with ground screenings not exceeding mill run.
Thornton and Chester Milling Co.	F.	16.77	5.24	62.09	4.86	11.04	.....	
Buffalo, N. Y.								
Shorts with Mill Run Screenings	G.	16.00	4.50	.....	....	.....	11.00	
Toronto Milling Co.	F.	17.51	6.30	59.64	4.39	12.16	.....	
Streetsville, Ont.								
Wheat Bran	G.	14 00	3.00	.....	....	.....	10.00	
Elzebert Turgeon	F.	17.04	5.67	60.56	4.61	12.12	.....	
Montreal, Canada.								
Rowena Middlings								
Valley City Milling Co.	G.	13.00	4.82	58.00	....	.....	7 50	Ground screenings not exceeding mill run.
Grand Rapids, Mich.	F.	16.73	4.86	61.79	4.51	12.11	.....	
Victor Spring Wheat Bran								
Victor Flour Mills, Inc.	G.	16.00	4.00	53 30	....	.....	11.00	Ground screenings not exceeding mill run.
Victor, N. Y.	F.	14.63	6.02	64.02	5.29	10 04	.....	
Mixed Feed, Mill Run Bran								
Waggoner-Gates Milling Co.	G.	15.50	4.00	50.00	....	.....	10.00	Ship stuff, shorts and bran from soft winter wheat.
Independence, Mo.	F.	17.51	4.72	61.53	5.72	10.52	.....	
Durum Red Dog	G.	16 00	4.00	60.00	....	.....	4 00	
Washburn-Crosby Co.	F.	18.04	5.95	61.01	3.60	11.40	.....	
Minneapolis, Minn.								
Gold Medal Wheat Bran	G.	14.00	4.00	50.00	....	.....	12.00	Cleaned ground wheat screenings not exceeding mill run.
Washburn-Crosby Co.	F.	15.50	5.37	64.15	5.41	9 57	.....	
Minneapolis, Minn.								
Mixed Feed	G.	14.00	4.00	53 00	....	.....	10.00	Wheat bran, wheat flour, middlings and cleaned ground wheat screenings not exceeding mill run.
Washburn-Crosby Co.	F.	16.50	4.58	62.78	5.07	11.07	.....	
Minneapolis, Minn.								
Standard Middlings	G.	15.00	4.00	52.00	....	.....	9.50	Cleaned ground wheat screenings not exceeding mill run.
Washburn-Crosby Co.	F.	17.08	5.06	62.17	4.40	11.29	.....	
Minneapolis, Minn.								

Brand and name and address of manufacturer		Pounds in 100 lbs. of Feed Stuff						Certified by manufacturer to contain
		Protein	Fat	Carbo-hydrates	Ash	Moist-ure	Crude Fiber	
Blue Seal Pure Wheat Feed	G.	19 00	5.00	.....	....	.....	7.00	Less than mill run screenings.
H. K. Webster Co. ..... Lawrence, Mass.	F.	16.31	4.56	62.07	5.43	11.63	.....	
Pioneer Wheat Bran	G.	.....	....	.....	....	.....	.....	
Western Canada Flour Mills Co. ..... Winnipeg, Canada.	F.	15.59	5.98	61.27	5.91	11.25	.....	